

Chapter Four

PROPOSED IMPROVEMENTS AND RATIONALE

Introduction

This chapter provides recommendations for corridor improvements within the study area. It begins by summarizing the proposed major improvements and then details improvements for each jurisdiction. Recommendations range from adding lanes, improving intersections, redesigning boulevards, converting diagonal intersections to T-intersections, adding bypass lanes or turning lanes, and other access management solutions. The options selected for intersection improvements should provide more consistency in intersection treatments and median crossover design along US-41/M-28 to minimize driver confusion. The final section in this chapter includes pedestrian, trail and transit recommendations.

Summary of Major Improvements on the Corridor

Adding Lanes and Extending Boulevards

MDOT has existing plans for improvement of the US-41/M-28 corridor which include adding lanes and extending some of the existing boulevard area. Wherever cost-effective, the new median width would be sufficient to permit median crossovers as illustrated in Chapter 3, Figure 3-6. These lane additions, boulevard extensions, median crossover improvements and other reconstruction projects should be accompanied with appropriate access management techniques to protect the new investment in the road. For example, "locking in" the number of driveways can be accomplished in especially the rural parts of the corridor by local zoning when the road is reconstructed. Future driveways would be planned to share access from a limited number of access points. All new driveways should be spaced in accordance with the MDOT Guidelines for Driveway Spacing in Table 4-1 below.

Table 4-1 Guideline for Unsignalized Driveway Spacing

Speed on Roadway (MPH)	MDOT Spacing Guidelines (feet)
25	130
30	185
35	245
40	300
45	350
50	455
55	455+

Source: "Spacing for Commercial Drives and Streets," MDOT Traffic & Safety Division Note 7.9, Table 1.

The major recommendations for new lanes and extending boulevards are presented from west to east along the corridor. The recommendations in this section also appear in the following more detailed recommendations sections, and can be located on Maps 4-1 through 4-8.

Ely Township

There is a five-lane extension planned from County Road 496 in Ely Township, east to Westwood Drive in Ishpeming Township. This would be a major capacity and safety improvement because the existing road is only two lanes. This will accommodate the ingress and egress traffic turning into the W. Marquette County Transfer Station, traffic turning onto Aspen Ridge Road, the traffic turning into County Road 496 at both intersections within this section of the corridor. This will also eliminate the problem of sight interference that presently exists with a power pole located along the Northeast side of the US-41/M-28 and County Road 496 intersection. If this improvement is initiated, the driveways on currently undeveloped land should be "locked in" to prevent any additional driveways in this area of the corridor. See Chapter Five and Six for a fuller discussion of this technique. Also the turning radius at the intersections of County Road 496 and US-41/M-28 should be improved.

Ishpeming

US-41/M-28 is planned to be uniformly widened to five-lanes from Malton Road in Ishpeming to Cambria in the City of Negaunee and eventually to connect to the rest of the five-lane segment at Teal Lake Road in Negaunee. The planned expansion would be a significant safety improvement which would allow ingress and egress traffic to utilize a left-turn lane in this area. If this improvement is initiated, the driveways should be "locked in" to prevent any additional driveways in this area of the corridor, also the turning radius at the intersection at Cambria should be improved.

Negaunee Township and Marquette Township

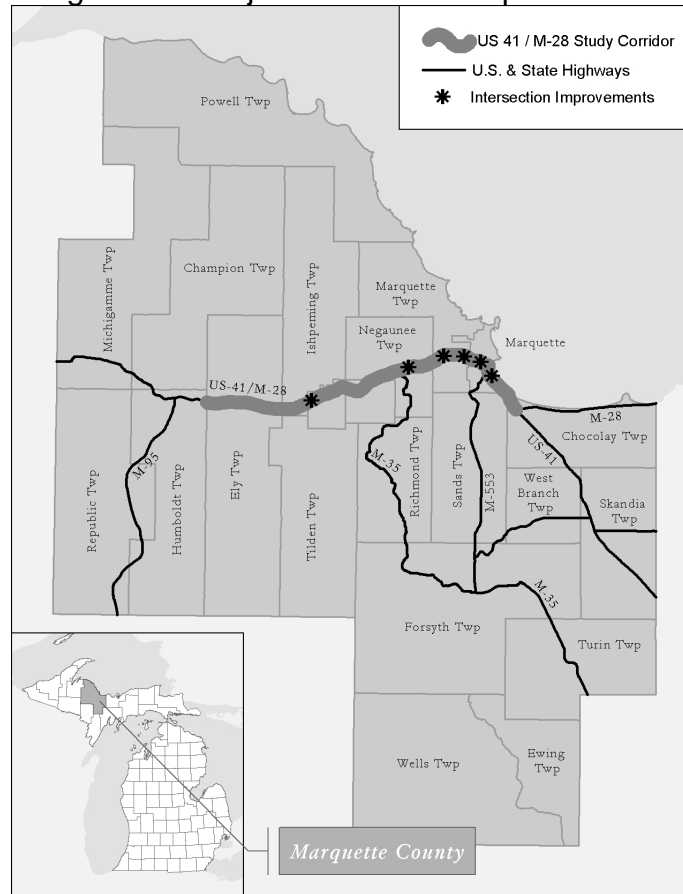
MDOT has planned for the median within Negaunee Township to be improved and upgraded. Median crossovers need to be redesigned in this area so that eastbound and westbound turn-around traffic is separated. Medians would assist drivers in this area because of the topography changes which restrict sight distance in some areas. Also, the median is planned to be widened from Negaunee Township through to Marquette Township, just east of Brickyard Road. Median crossovers also need to be redesigned in Marquette Township to incorporate the indirect left-turn at intersections such as Erickson, Target and the Westwood Mall entrance (see Chapter 3, Photos 3-14 and 3-16). Several median crossovers would be closed and others moved as a part of boulevard reconstruction.

Intersection Improvements

Following are major intersection improvements that should be considered. The general locations are represented on Figure 4-1. Other intersection

improvements are also addressed within the detailed recommendations for each jurisdiction. These improvements include correcting the radius of turns, adding turning lanes, improving signalization, new signage, improving the pedestrian facilities at the intersection or a combination of several of these elements. In addition, some speed limit changes should be considered. The most significant is establishing a uniform speed limit from Brickyard Road in Marquette Township to Front Street in Marquette on both sides of the street. Refer to Maps 4-1 to 4-8 for locations of each detailed recommendation.

Figure 4-1: Major Intersection Improvements



Lakeshore Drive, Ishpeming

Intersection improvements should be considered at Lakeshore Drive which had 40 crashes from 2000 to 2003, and had the most injury crashes within the study area with 18 injury related crashes and one fatality. The signal timing has been evaluated at this intersection to ensure there adequate turning time for left-turns. Internal linkages should be improved within Country Village to encourage left out at the light at Lakeshore, instead of at three driveways. Consider permitting only right-turns out of the shopping plaza for westbound traffic. The internal improvements would better connect parking lots and improve traffic flow. The turning radius of the existing driveways should be improved to "T" (see Figure 3-7). Also signage and pavement markings could be improved within the plaza to

orient drivers to utilize the Lakeshore Drive exit. Eventually, Carp River Road should be linked to Lakeshore Drive to provide alternative access.

Old Airport Site, Negaunee Township

At the site of the former airport, a casino development has been proposed. If this parcel is redeveloped the Township should limit additional access from US-41/M-28. Instead, access should come from a parallel road to US-41/M-28 that extends from Snowfield Road on the east to Heritage Drive on the west. A proper entry can then be established for the proposed casino off of US-41/M-28 at the point of the existing entry to the old airport. The current entry road is difficult to locate and should be reconstructed to improve visibility to the site. The median on US-41/M-28 should be redesigned to restrict left-turns directly into and out of the casino. An indirect left-turn with a turn-around for the eastbound and westbound traffic on US-41/M-28 is recommended. The casino entry and turn-around lanes on US-41/M-28 should be carefully sited to avoid conflicts with the M-35 intersection.

Target/County Road 492/Westwood Mall, Marquette Township

This area has the highest traffic volumes in the Upper Peninsula and will continue to increase in traffic volumes as more development occurs. The following options would be an improvement to the existing road geometry and traffic signal location. See Photos 4-1 and 4-2.

The first option for this area is for the County Road Commission to complete connection of Target Drive from current County Road 492 (Wright St.) north of Target so that traffic can use the light in front of Wal-Mart. This would allow vehicles on Wright Street to move up the hill and turn onto westbound US-41/M-28 at a flatter grade by Target. The County Road Commission has a plan to purchase the right-of-way and complete this road in the next few years.

Another option is to add a traffic light and full four-way intersection at the current junction of County Road 492 and US-41/M-28. This change would be the lowest cost, and would also require the least physical changes. However, this would require adding a third light ¼ mile from the two existing lights in violation of warrant standards. Also, trucks turning west onto US-41/M-28 have a steep uphill grade at this intersection and may have trouble getting up to speed to cross the intersection or turn west.

Another option in this area is moving the traffic light from in front of Kohl's to the intersection of Commerce Drive and US-41/M-28. Commerce Drive would be extended on the south side of US-41 to connect to Brookton which would need improvement to the current CR 492 in front of the Marquette Township Hall. In order to put a road through, significant rock would need to be excavated and a single family home would need to be acquired. But this location puts the traffic light in a better position for use by new businesses served by Commerce Drive, as well as, serving mall traffic, and it keeps a half mile separation distance

between the traffic lights. It would also improve the emergency response time of the Township Fire Department to properties south of US-41/M-28.

Potential problems with putting a traffic signal here and extending the road across US-41/M-28 include directing some truck traffic on Commerce Drive that otherwise would not go there. Also, extending Commerce through to Brookton is more expensive than just moving the traffic light. There may also need to be a study regarding stopping distance of trucks on US-41/M-28 or possible surface roughing techniques to improve the grip of tires, because the slope may present problems for large trucks to start from signal changes during snowy or icy conditions.

At an unspecified future time, and when the opportunity exists, it may be desirable to extend Brickyard southeast of US-41/M-28 to existing 492 along the old railroad tracks behind Wal-Mart. This provides a parallel road on the south side of US-41/M-28 and opens additional property south of US-41/M-28 for intensive development. It also keeps the desired ½ mile separation distance between traffic signals if a new signal were added at Brickyard. If this were done, it would also be desirable to extend Target Drive south to the new road between Wal-Mart and the SBC buildings. This option has not yet been approved by any of the existing property owners and would require careful analysis before implementation.

Whatever options are selected, the chosen improvements should include an internal circulation plan for the north side of US-41/M-28 to better link parcels and restrict access to the main arterial. This means redesigning flow within existing parking lots and ensuring all parcels are connected. Also, the median crossovers within the area between Target and Erickson should be redesigned (and some closed) to allow for limited turn-around movements, and more left-turn stacking room. In particular, the crossover in front of Applebee's should be moved east of the present location. These changes could be made as the opportunity presents itself (because of other changes in the area), but definitely should be implemented when the boulevard is widened to conform to current MDOT standards. These improvements need to be accompanied with proper signs and improved striping so traffic routes into and through the mall area are clear to motorists.

Photo 4-1: Signal across from Target and Wal-Mart in Marquette Township

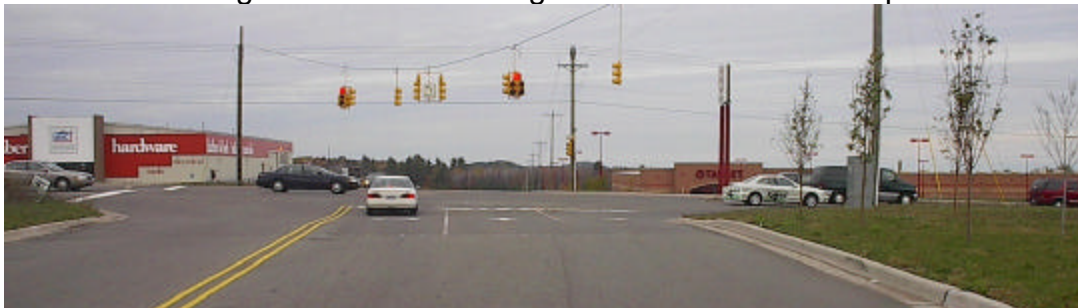


Photo 4-2: Signal across from Kohl's



Washington Street/US-41/M-28, City of Marquette

Currently the Washington Street and US-41/M-28 intersection in City of Marquette appears to work relatively well even though it is the most complicated design along the corridor with many conflict points. However, it is the highest crash intersection within the study area. The dual left signal at this intersection allows eastbound traffic to turn onto Washington (see Photo 4-3). Crashes often occur when cars accelerate to get through the left-turn. See Crash Diagrams in Appendix B. Recommendations for improving this intersection should be considered jointly with other intersection improvements within the City of Marquette to try to achieve a more uniform treatment within this part of US-41/M-28.

One option for the Washington/US-41/M-28 intersection would be to close Meeske at US-41/M-28 so it did not go straight through. Another option is closing Meeske at Washington so it is right-in and right-out only. This would reduce several conflict points.

A third option is to create a standard T-intersection with signals in all directions. This will increase delay and reduce the level of service on US-41/M-28, but would likely slow traffic enough to reduce crashes. It is also a simpler design to that would reduce driver confusion. This option is much less costly than the next one and could be phased, offering substantial safety benefits for little expense.

A more comprehensive solution though a more expensive design would be eliminating the traffic signal and reconfiguring the intersection as a roundabout. There is ample existing space and it would present a unique opportunity for a beautiful entry to Marquette from the west. Roundabouts are generally considered to be a safer design that would reduce congestion and allow traffic to flow more smoothly at peak periods. If there were substantial interest in this option, then roundabouts at three other intersections east of this one, within the City of Marquette, should also be considered to create a uniform approach that minimizes driver confusion. However, none of the other intersections have as

much space as this one and a detailed cost and feasibility analysis would be necessary before pursuing this option further. Whatever option, it should not decrease level of service or cause additional user delay; nor should it add to user confusion.

Photo 4-3: US-41/M-28 traffic turning onto Washington Street



US-41/M-28 at McClellan

The McClellan intersection has the second highest number of crashes in the study area. The grade on McClellan on the north side of the intersection limits the sight distance.

One option is to change the grade on McClellan from Baraga to US-41/M-28 to improve southbound sight lines when approaching the US/41-M-28 intersection. Baraga is only about 400 feet from the US-41/M-28 intersection. Baraga has several institutional uses that have trucks pulling in and out of the Baraga/McClellan intersection. Unless the City of Marquette is willing to restrict turning movements at Baraga to allow only right-turns onto McClellan, the grade on McClellan should be altered to allow better sight for vehicles progressing through the US-41/M-28 intersection. This may require driveway relocation of the auto dealership.

If after a feasibility analysis, a roundabout is selected for Washington Street and/or Front Street and US-41/M-28 within the City of Marquette, and then the McClellan intersection should also be considered for a roundabout. A roundabout at McClellan would also require significant grading to reduce sight distance problems for southbound traffic, and also to accommodate the entry and exit angles required for a roundabout. There may be a need to acquire additional land, and/or cut on the south side and fill on the north side to achieve a proper design. This could further limit available space to improve the grade on McClellan north of US-41/M-28. It may not be a viable option.

Pedestrian and bicycle crossing of US-41/M-28 at McClellan is difficult and likely to become more of a problem as the City implements bike routes. A structure over the road will be a problem with wind, snow and ice and is not likely to be used as often as it should be. A tunnel should be explored, but because of the grade changes it may be difficult and expensive to implement. The old rail bridge crossing US-41/M-28 west of McClellan provides one possible opportunity for pedestrian, bicycle and snowmobile connection, but the route would need to diagonal back to O'Dovero Drive after US-41/M-28 were crossed. Still, this is the safest alternative and should be explored. The City of Marquette is undecided on snowmobile use of the rail trail east of the rail bridge at this time, so any trail design should take into account the results of a planning study to determine the best use.

US-41/M-28 at Grove Street

This intersection may have more traffic in the future if 7th Street is extended on the north side of the intersection, through the former rail yard. Such an extension would significantly improve north/south travel options to key destinations in the City. The first option presented to improve safety at the intersection includes eliminating left-turns at the existing intersection (see Photo 4-4). This would require the current median to be redesigned to require an indirect left-turn. This puts the turn-around close to the Altamont bridge overpass and would possibly require widening the median to get closer to the proper width, although the separation distance from the intersection would still be substandard. These technical deficiencies may eliminate this as a viable option.

Minor changes to signalization and the left-turn design may also improve traffic safety and flow. Any such changes should be carefully coordinated with similar changes at the three adjacent intersections to ensure driver confusion is reduced through a more common intersection design.

Another option to consider is to eliminate the traffic signals and install a roundabout at the existing intersection. If after a feasibility analysis a roundabout is chosen for Washington Street and/or Front Street and US-41/M-28 within the City of Marquette, then the Grove intersection should also be considered for a roundabout. A roundabout would need to be carefully designed to avoid negative impacts on a nearby stream, wetland, and additional right-of-way may need to be acquired. It would be an expensive option and may not be viable.

The last alternative is a standard 4-way intersection at a new western route for 7th Street, 800' west of the existing intersection. The north side of the existing intersection would be closed. This would leave room for proper median crossovers and Grove would have all left-turns prohibited. Left-turns would only be accommodated with an indirect turn-around. However, this option would clearly involve a stream crossing, impact a wetland, and probably require an Act of Congress to change the intersection point on an urban freeway segment. It also presents challenges for traffic movement on Homestead Street in front of an

existing apartment building on the south side of US-41/M-28.

Pedestrian and bicycle crossing is a growing issue at this intersection, and will only increase in significance if 7th Street is extended. A pedestrian bridge across US-41/M-28 would need to be very long to achieve the necessary grades under the Americans With Disabilities Act and would be very expensive. A much better option is to continue to use Altamont Street as the crossing location since it is nearby, there is already an overpass in place and it is a designated part of the City bicycle system.

Photo 4-4: Grove Street Intersection (looking west)



US-41/M-28/Front Street, City of Marquette

This intersection also has unique geometry (see Photo 4-5). US-41/M-28 curves to the south to bypass downtown Marquette and Front Street also merges with US-41/M-28. As Photo 4-5 shows, traffic is allowed to crossover many lanes to complete turning movements without a traffic signal.

Photo 4-5: US-41/M-28/Front Street intersection (looking south)



Minimally, the storage lane of the north to west traffic volume needs to be lengthened and a study of merging lanes is needed to avoid the frequent rear-end crashes at this intersection. Eastbound approach speeds may also be reduced to 45 MPH, if speed study supports a change.

The intersection could be most cost-effectively improved by creating a T-intersection with stoplights. This may be a safety improvement over the existing intersection, but is likely to create a traffic delay at peak periods. While this design will reduce driver confusion, it may also reduce the level of service at the

intersection compared to the present design or a roundabout design.

If a roundabout is chosen for Washington Street at US-41/M-28, then the Front Street intersection should also be seriously considered for a roundabout. A roundabout would allow steady and safe traffic progression and preserve, if not enhance, the level of service at the intersection. A roundabout would provide a great opportunity for a more beautiful entry to Marquette from the east. However, space is limited here and a roundabout may require creating some space lakeward over the edge of the bluff or cutting further into banks on the southwest and northwest sides of the intersection, which would increase the cost of a roundabout here.

Walter Kulash, a noted transportation planner, examined this intersection and gave the City a report in 2001 that identified several other options for this intersection, including roundabout variations. These should be carefully considered as part of a larger roundabout feasibility analysis, because at least one Kulash variation included a smaller than usual design that may fit this intersection.

Again, the roundabout option is more expensive and available space is limited creating other potential problems. If there is interest in this option, this intersection along with Grove, McClellan and Washington should all be evaluated as part of a feasibility analysis. If the result was infeasible at one or more of these intersections, the option selected should focus on a single uniform design to minimize driver confusion. If roundabouts were feasible and selected for any of the intersections within the City of Marquette, it is important that driver education and public awareness campaigns be jointly developed and delivered by MDOT and the City to properly prepare motorists for roundabout design.

US-41 at Hampton

This intersection is located about ¼ of a mile south of the Genesee Street intersection. Reportedly cars and trucks often “blow” through this intersection. The steep approach grade from the south (westbound US-41/M-28) direction is the problem. Rumble strips could be added coming down the hill (just as they are coming up to the Front St/US-41/M-28 intersection going east bound) and they may help slow traffic through this area. A number of speed studies have already been done here and speed limit changes were not warranted. However, due to the new South Rail Yard Development along the harbor, consideration is being given to moving the traffic signal at Genesee to Hampton. A new signal analysis will be performed, and operational considerations may warrant a change in the signal location and advance warning signs. If so, instead of rumble strips, advance warning devices will likely be needed at the top of the hill and half-way down for north and westbound traffic.

While there are several properties with too many driveways in this area (see Map 4-7), nearly a quarter of the crashes near the intersection are at driveways of the

tire center where all but one redesigned driveway should be closed. Pedestrian crossings with connections to sidewalks should be improved on both sides of the street, beginning with improved pavement markings.

Railroad Improvements

Railroad Bridge Negaunee Township

The railroad bridge in Negaunee Township over US-41/M-28 is not a standard height, it is currently 14' high (see Photo 4-6). Many trucks can not travel through this area because of the height restriction. This has created a burden on the County road system which has accommodated the trucks. In order to bypass this bridge, trucks must connect to US-41/M-28 utilizing County Road 480 or 492 which connects to US-41 further west. It is recommended that US-41/M-28 be lowered below the railroad crossing so that the depth will be a minimum of 14' 6". This will take some trucks off the County roads, but will also likely increase truck traffic through the City of Marquette and Marquette Township.

Photo 4-6: Existing 14' Railroad Crossing



Recommended Improvements

The US-41/M-28 Corridor Advisory Committee assisted the consultant team with the identification of specific traffic flow and safety improvements along the corridor. The following list of recommended improvements is presented from west to east along the corridor from the Ely Twp./Humbolt Twp. line 28.4 miles east to the junction of US-41 at M-28 in Chocolay Twp. The recommendations are listed by governmental unit. Each issue or recommendation is numbered and is visually represented on the attached Maps 4-1 to 4-8. The numbering of issues begins on the western border of each jurisdiction and proceeding to the east. The numbering is not a representation of importance of one issue over another issue; it is merely a means to organize the issues and recommendations. The list represents a collection of issues, ranging from pedestrian oriented concerns, driveway closures, intersection improvements and aesthetic concerns.

The numbered list includes the concerns talked about in the previous section, but also includes detailed issues sometimes on a parcel by parcel basis.

Each issue has been coded with an S, L or O which indicates the following: "S" indicates improvements to be made in the short term. "Short term" would be less than 5 years. "L" indicates improvements to be made in the long term. "Long term" would be anything over 5 years, ranging up to 20 years. "O" indicates improvements to be made as the opportunity arises, either as redevelopment occurs or as road improvements occur.

Ely Township

There were twenty issues identified within Ely Township. Several safety issues were identified within the Township, including the construction of bypass lanes at intersecting roads, and constructing turning lanes. County Road 496 crosses US-41/M-28 at oblique angles at several locations. These angles are recommended for adjustment. See Maps 4-1 and 4-2 for the exact location of each of the following recommendations.

1. Check right-of-way maps to indicate if a sign is in the right-of-way just east of the Humbolt/Ely Twp line (O).
2. Adequate turning and bypass lanes at the intersection of US-41/M-28 and County Road 496 (Lake Lory Road) should be constructed. This should include traffic markings that will keep the County Road traffic entering US-41/M-28 back to allow for the bypass traffic (O).
3. The intersection of County Road CKJ and westernmost part of County Road CKL (L) should be straightened (T-intersection). The intersections meet at an odd angle, and are presently too close.
4. Close one drive way and develop curb control at auto salvage on north side and close one driveway at auto salvage yard across on south side of street, also improve curbing (O).
5. Close one drive way at Derocha Steak House (O).
6. A westbound turning lane and an eastbound bypass lane on US-41/M-28 should be constructed at the County Road CKL intersection (L).
7. The passing lane beyond the west side of the intersection at County Road CKC and US-41/M-28 should be extended. This will allow for a safer ingress and egress of the County Road Commission trucks that use County Road CKC to transport gravel throughout W. Marquette County (L).
8. Build west and eastbound turning lanes at the intersection of County Road CJ and US-41/M-28 (L).
9. Close the second driveway 900' W of County Rd. CN (O).
10. Construct a passing flare at County Road CN (S).
11. Construct turning and bypass lanes at the intersection of US-41/M-28 and County Road 478 (Wawonowin Club Road). This should include proper traffic markings to make sure that traffic entering the intersection from County Road 478, stops far enough back to allow for the bypass

- traffic (L).
12. Check if signs in right-of-way (O).
 13. Close one drive at Lawry's restaurant (O).
 14. Build bypass lane for eastbound traffic at the intersection of County Road CKM and US-41/M-28. Also construct a right-turn lane for westbound traffic turning onto County Road CKM (L).
 15. Allow only southbound traffic on County Road CZ at US-41/M-28-close off northbound connection. Build a bypass lane on the north side of US-41/M-28 for traffic turning south at the County Road CZ intersection (L).
 16. Define driveway using curbs at Marathon gas station parking area (O).
 17. Fix CR496 sight distance problem when reconstructing intersection. On the northside of the road the hill west of the intersection rises up to the gas station and affects sight distance (L).
 18. Improve the turning radius at the intersection by constructing a T-intersection with CR 496 on south side (L).
 19. Improve the turning radius at the intersection by constructing a T-intersection with CR 496 and Diorite Rd (western entry). (L)
 20. Extend five-lane from Westwood Dr. in Ishpeming Twp. west through to County Road 496 west of the Carp River (L). See page 4-2 for detailed description.

Photo 4-7: Ely Township



Insert Map 4-1

Insert Map 4-2

Ishpeming Township

There were fourteen issues identified within Ishpeming Township. Ishpeming Township has an opportunity to improve the aesthetic appearance and pedestrian facilities within the residential areas. Several driveway closures are recommended, as well as, improving the turning radius of two intersections; one at US-41/M-28 and CR 496 and one at US-41/M-28 and North Lake Road. See Map 4-2 for the location of issues one, two and three. See Map 4-3 for the remaining issues four through fourteen.

1. Improve the turning radius at the intersection of CR 496 and Diorite Rd by constructing a T-intersection (eastern entry) (L).
2. Close the driveway at Westwood Dr. to US-41/M-28 for RL Balconi Co. Provide access from Westwood Dr. (O).
3. Check if the sign is in right-of-way (O).
4. Possibly create a cul-de-sac for Sello Street at Randall Drive or possibly a cul-de-sac for Rose Street instead of the awkward angled intersection to US-41/M-28 (O).
5. Sign in right-of-way is probably sign for high school (O).
6. Consider improving turning radius for Pansy, Lilac, Daisy, and/or Marigold Streets (L).
7. Redesign the internal parking at Jim's Car Wash because currently the parking along US-41/M-28 may be in the right-of-way (O).
8. Close the second driveway to church on north side of US-41/M-28 (O).
9. Avoid offering parking spaces close to the road which interferes with sight out of driveways. Put in curbs, street trees and plantings where possible (L).
10. Check if the sign is in right-of-way (O).
11. Check if the sign is in right-of-way (O).
12. A pedestrian crossing US-41/M-28 should be added at the intersection to permit safe crossing from the park to ice cream store. Because there is concern about a standard crossing in this area a tunnel could be considered. However, there is no integrated sidewalk system to connect to. The existing Ishpeming Township sidewalk system would likely need to be enhanced before this improvement were made (L).
13. Improve the turning radius at the intersection by constructing a T-intersection at North Lake Rd (L).
14. Add right-turn lanes at Cooper Lake Road for east and westbound traffic and open the radius on the turns (O).

Ishpeming

There were fifteen issues identified within the City of Ishpeming. The biggest issue is improving the intersection at Lakeshore Drive, (see discussion on page 4-3). See Map 4-3 for the location of issues one through fourteen. See Map 4-4 for the location of issue 15.

1. Relocate the existing driveway to line up across from Dione St.

Alternatively, redesign driveway location when design for street system on abutting land is proposed (O).

2. Check if there are signs in right-of-way on both sides of US-41/M-28 (O).
3. Check if billboard is located in the right-of-way (O).
4. A five-lane widening possible from Second St. to Cambria Rd and eventually to Teal Lake Road in Negaunee (L).
5. Narrow the driveway at Ralph's Deli on NE corner of US-41/M-28 and CR 573-drive that is on CR 573-drive. Entry is too close to intersection (O).
6. Better the define driveways (the driveways that open onto US-41/M-28) at Peninsula Glass on NE corner of US-41/M-28 at CR 573 (O).
7. Building is too close to road for adequate sight distance out of parking lot (O).
8. Close the driveway at Northern Veterinary Clinic at Hickory St. Open access from Elm St. (O).
9. Close driveway (O).
10. Improve eastbound right-turn curve radius of road at Hickory Street because of poor angle of turn (L).
11. On north side of US-41/M-28 possibly close access for properties that may eventually be able to take their access from Hemlock St. or Miracle Street, particularly if uses convert from residential to commercial (O).
12. Pedestrian crossings are important to City, especially at Second, but there are no sidewalks here (need to be interconnected or linked to a trail system). Check possibility of tunnel or overhead crossing not too near intersection (L).
13. Light is at 2nd Street but it is not a straight route into City. 3rd Street is a straight route downtown, but does not connect on north side of US-41/M-28 like 2nd does. The downtown businesses may prefer a traffic signal connection at 3rd instead of 2nd Street. As an alternative it may be desirable to diagonally connect 2nd Street to 3rd Street south of the railroad right-of-way (L). In any event, the signal timing and overall operation should be evaluated for providing safer turning opportunities at Second Street. Also consider constructing rear service road behind Burger King to Hickory adjacent to RR line as option for local traffic in this area.
14. As properties develop east of Moulten, assure adequate driveway separation on both sides of US-41/M-28 (S).

Photos 4-8 and 4-9 Ishpeming Township and the City of Ishpeming



Insert Map 4-3

Negaunee

There were eleven issues identified within the City of Negaunee. Negaunee has an opportunity to improve the aesthetic appearance and pedestrian facilities within the downtown area. Several driveway closures are recommended, as well as improving the turning radius of two intersections; one at US-41/M-28 and Cambria and one at US-41/M-28 and Heritage Drive. The signals in the downtown area at Teal Lake, Baldwin and Maas need to be evaluated for timing phasing. See Map 4-4 for the location of issues one through eleven.

1. Improve the turning radius at the intersection of US-41/M-28 and Cambria, by creating a T-intersection at Cambria (L).
2. Better define the intersection at Tilot Rd. or possibly close Cambria/Tilot middle access point (L).
3. Close both driveways to auto dealer 150' west of southwest corner of Teal Lake Rd. Access from Water St. Close drive to barber shop near southwest corner of Teal Lake Rd. Access from Water St. (O).
4. Possible implementation of a flashing red (instead of separate constant green arrow) to facilitate left-turns at Teal Lake. This is a tough left-out and left-in off of US-41/M-28 since there is no separate left-turn phase. Could also implement the same approach at Baldwin, and Maas (S).
5. Crosswalks are present on US-41/M-28 from Croix St. and Baldwin Ave. Sidewalks should be completed along US-41/M-28 and have adequate setback from the street where possible (L).
6. Close the east driveway of Beef-a-Roo (O).
7. Better define the driveways and curbs at Baldwin SE corner of US-41/M-28 (O).
8. Baldwin St. is difficult left-in off of US-41/M-28 (has more cross traffic than Teal Lake); possible treatment with flashing left-turn red light, instead of separate constant green arrow (see #4 above) (S).
9. A right-turn lane at Croix Street (westbound) and a possible right-turn eastbound at Maas could be created (L).
10. Check if there is a sign in the right-of-way (O).
11. Improve the turning radius at the intersection by creating a T-intersection at Heritage Drive (L).

Photo 4-10: US-41/M-28 in Negaunee



Insert Map 4-4

Negaunee Township

There were twenty-three issues identified within Negaunee Township. Primary recommendations were previously described for the former airport location near M-35 and the railroad bridge see pages 4-4 and 4-11. Other recommendations include driveway closures as well as improving the turning radius of two intersections; one at US-41/M-28 and Forest and one at US-41/M-28 and Midway Drive. See Map 4-4 for issues one and two. See Map 4-5 for the location of issues three through seventeen and see Map 4-6 for issues 18 to 23.

1. Close the driveway east of the Negaunee border. Realign the driveway to provide access from Heritage Drive. (O).
2. Better define driveways at SEMCO gas and encourage connections between parcels (O).
3. Close the driveway 450 feet west of Perala Ct. (O).
4. Close the driveway 300 feet west of Perala Ct. (O).
5. Better define the driveways and curbs 500 ft. west of Forest Dr. (O).
6. Improve the turning radius at the intersection by creating a T-intersection at Forest (L).
7. Close west drive of Vietnam Veterans of America 600' west of Airport Road (O).
8. Intersection improvement and limit access at old airport site/future casino to one main entrance. Construct a parallel service road the full length of the old airport property from Heritage Dr. to Snowfield Road. Also, consider constructing a trail from the near casino to connect with the existing trail and at the Township Hall on M-35 (S).
9. Close the west end of Midway Drive with a cul-de-sac (the end closest to the proposed casino) (L).
10. Close driveway on south side 100 feet east of intersection on Pond Road. (O).
11. Close middle driveway to M&G Party Store/Marathon on north side (O).
12. Better define curbs on south side between guard rails (O).
13. Close median opening (O).
14. Close the east driveway to the auto shop on the south side (O).
15. Extend Brebner to US-41/M-28 (L).
16. Close the west driveway of first business after Midway Dr. (Pathways) (O).
17. Check if the parking near US-41/M-28 is in right-of-way (O).
18. Improve the turning radius at the intersection by creating a T-intersection at Midway Drive. This intersection has a steep grade and cars exit Midway and must crossover three lanes (O).
19. Signs in right-of-way (O).
20. Better define the driveways and curbs across from Industrial Park Rd. (O).
21. Close County Rd. JPC approx. 100 feet east of railroad crossing (O).
22. US-41/M-28 should be lowered below the railroad crossing to a

minimum of 14' 6". This will take some trucks off the County roads (L). See page 4-11 for further discussion.

23. Widen width of median and better define median crossovers when improving boulevard from Negaunee to Marquette Twp. line (L). See page 4-2 for further discussion.

Marquette Township

There were thirty-three issues identified within Marquette Township. There were several major intersection improvements noted at the beginning of this Chapter. Following are detailed access management issues that should be addressed within Marquette Township, such as driveway closure and combining driveways. See Map 4-6 for the location of issues 1 through 36.

1. The median should be extended from the Township line east to the existing median. Median width should be expanded to meet contemporary standards where possible (L).
2. Improved pedestrian and transit access should be coordinated from Brickyard to the City of Marquette (coordinated sidewalks/pedestrian facility) (L).
3. Landscaping plan should be created from Brickyard Road to the City of Marquette with improved signage and burying of power lines. Lighting along the corridor through the mall area should be considered with costs borne by the benefited businesses through a special assessment. Such lights would likely reduce the need for the towering and bright parking lot lighting in this area. All lighting should be down directed to protect views of the night sky (L). Close drive at Honda on the north side of US-41/M-28 (O).
4. Improve turning radius by creating a T-intersection at Brickyard. Home Depot proposed for parcel on north side of US-41/M-28-would need intersection to be corrected (L).
5. Close the driveway on the north side of US-41/M-28-motel east of Brickyard (O).
6. Close the center driveway to Claws and Paws. If feasible, connect parking lots of businesses from Claws and Paws at least to Wal-Mart (better to Pier One) (O).
7. Improve and extend Brickyard on the south side of US-41/M-28 to improve rear access to existing businesses. The old rail right-of-way should be considered for this road at least to CR 492 (it would need to be carefully designed to avoid conflicts with the proposed Heritage Trail). In addition, careful consideration should be given to using the old rail right-of-way for a new road all the way to Bacon Drive in Marquette, and then extending Bacon south to Wilson. The proposed Heritage Trail would also be a part of the new design. This would provide a local street parallel to US-41/M-28 for local traffic and relieve some of the congestion (which will only increase as new development occurs around the mall) (L).

8. Close the eastern driveway of SBC next to signalized driveway (O).
9. Improvements to the right-turn lane should be considered for eastbound traffic at Wal-Mart (O).
10. Relocated county Road 492 (Target Drive) could be extended and relocated between Wal-Mart and SBC (see Intersection Improvements section earlier in this Chapter on page 4-5.) (L).
11. A fire hydrant too close to the south side of US-41/M-28 should be moved (S).
12. CR492 relocation (see options in Intersection Improvements section earlier in this Chapter on page 4-4 and 4-5) (L).
13. Improve internal circulation between parcels from Target to Commerce Dr. (L).
14. Close off left-turns from eastbound US-41/M-28 to 492 (S).
15. Close the eastern driveway to Red Lobster and connect the parking lots of Culvers Ice Cream and Red Lobster). Also connect Culvers and Red Lobster with Brookton Rd through rear access (O).
16. Close the Applebee's driveway and combine with mall access when possible. Move the current crossover opening 50 to 75 feet east to improve turning movement safety (O).
17. Mall/Commerce Drive and Brookton circulation changes (see options in Intersection Improvements section earlier in this Chapter on page 4-4 and 4-5) (L). Also right-turn signal at Kohl's needs to be corrected (see crash analysis in Appendix B).
18. Evaluate the existing speed limit westbound from the City of Marquette to Brickyard. Recommend new speed study in this area (S). See Photo 4-11 of 50 MPH speed in area of retail development

Photo 4-11: 50 MPH speed limit



19. Pedestrian connections should be established in this area. However, where to provide pedestrian crossings in this area is difficult. If at grade must be at traffic signals. Also should study possibility of tunnels instead of at grade or overhead crossings. Currently there is a 12' culvert (west of Sears by Lamplighter). It should be explored for use as a pedestrian tunnel. It should also be examined for its potential to accommodate snowmobiles. Two crossings (one on the east and one on the west end) should be examined with access from both the north and south sides (L).
20. Commerce Drive can be linked from the mall to Brookton by extending road (see options in Intersection Improvements section earlier in this

Chapter on page 4-4 and 4-5). (L).

21. May need to reduce grade on westbound lane in front of parcels east of CITGO or rough surface to improve traction if traffic signal is moved to Commerce Drive (O).
22. Close the west and middle driveways to Chevrolet Dealer on south side and provide on-site unloading of vehicles (O).
23. Close the west drive way to Koupp Auto Sales on north side (O).
24. Close the west drive way of small office building east of Brentwood Motel on south side (O).
25. Close west drive of Golf Complete on north side; share driveways with adjoining parcels (O).
26. Check if signs in right-of-way (O).
27. Check if signs in right-of-way (O).
28. The direct lefts at Erickson should be eliminated. It is the highest crash location in the Township. A new directional crossover to the west which required an indirect U-turn instead of a direct left-turn will significantly improve safety at this intersection (L). As the opportunity presents itself, consider changes to the driveway location and permitted directional movements at the Bonanza, because a driveway is too close to the Erickson intersection with US-41/M-28 (O).
29. Check if signs in right-of-way (O).
30. Close west driveway at Range Communications on north side (O).
31. There are too many signs from Erickson St. to West Ridge on north side of US-41/M-28 (O).
32. Close driveway at Kawasaki dealer on south side and eliminate parking in right-of-way (O).
33. Right-turn lanes would be beneficial particularly on turns with a difficult angle, such as County Road HF at Pepp Motors near the Township and City border. (O) Redo access to Pepp Motors at corner of Brookton (the driveway is too close to the intersection) (O).

Photo 4-12: US-41/M-28 in Marquette Township



Photo 4-13: US-41/M-28 in Marquette Township (looking east)



Map 4-5

Insert Map 4-6

Marquette

There are twenty issues identified within the City of Marquette. Many of the intersections were discussed in detail at the beginning of this Chapter. There are several driveway closures suggested as well. Detailed pedestrian, recreation trail and transit issues are discussed in the next section. See Map 4-7 for the location of the recommendations 1 through 19. See Map 4-8 for recommendation number 20.

1. Consider closing one driveway and installing a frontage road from Brookton Rd. to Bacon Rd on the south side. Also consider encouraging a gasoline station here so that snowmobiles don't have to cross US-41/M-28 in front of the Holiday Inn. In addition enforcement of laws related to snowmobiles crossing of public streets and highways should be improved in this area (O).
2. Extend the curb-island and add landscaping in front of Villa Capri on north side (O).
3. Close the west drive way to Bald Eagle Harley sales (O).
4. Close the west driveway to Big Boy (redevelopment is a good opportunity for eliminating driveways-when the city implements access management via site plan review) (O).
5. US-41/M-28/W. Washington (US41 BR) intersection. See options in the Intersection Improvements section earlier in this Chapter on page 4-6 (L).
6. McClellan Ave. has the second highest crash incidence on the corridor. It has a steep grade approach to the intersection of US-41/M-28 making it hard to see coming from the north (S). See options in the Intersection Improvements section earlier in this Chapter on page 4-7.
7. Explore weather related safety issues between Front and Washington and determine if any new signs or design changes are warranted (L).
8. The proposed extension of Seventh Street across the old railroad yards will improve circulation in the City, but will also put additional hospital and university traffic into the US-41/M-28/Grove intersection. (L) See options in the Intersection Improvements section earlier in this Chapter on page 4-8.
9. Intersection improvement US-41/M-28 at Front St. (L) This intersection is stressful for drivers and will only get worse as volumes increase. See options in the Intersection Improvements section earlier in this Chapter on page 4-9.
10. Where possible, properties should take access from Champion and close access to US-41/M-28 (O).
11. The new South Rail Yard Development along the harbor will make the US-41/M-28/Genesee intersection a four-way intersection. The signal will need to be upgraded at the intersection if it is not moved to Hampton Street. Add landscaping in this area (S). Further evaluation of pavement conditions is needed with an eye to improving pavement friction qualities.

12. The Hampton Street intersection with US-41/M-28 has no traffic signal, but is number eleven of all of the intersections within the corridor study area in number of crashes. It should be studied as the possible location of a traffic signal moved from Genesee Street. See options in the Intersection Improvements section earlier in this Chapter on page 4-10.
13. Close the north driveway of Rent All north of Genesee St and close south drive way of Cliff's Muffler Shop at Genesee (O).
14. Close the north driveway of Beef-A-Roo at Genesee St. (O).
15. Close the south drive way of Marathon gas station at Hampton St. (O).
16. Close the south drive way to Pepsi distributor at Furnace St. (O).
17. Close the driveways closest to water (O).
18. Close the north driveway at DNR building (O).
19. The City is considering constructing a new road along the Carp River by the Prison to connect McClellan to US-41/M-28. This would also open considerable land to development (L). The new intersection should be carefully located.
20. The "Rock Cut Area" actually encompasses a portion of Chocolay, a sliver of Sands Twp. and the City of Marquette. In the winter, it is a potentially significant white out area. Safety issues should be studied relative to other improvements in this area and changes incorporated into future signs and/or roadway improvements as necessary. Preservation of existing views of Lake Superior should be preserved when any options for change are considered (L).

Chocolay Township

There were seventeen issues identified within Chocolay Township. Chocolay Township currently has two intersections within the top ten crash intersections within the corridor study area, Silver Creek Road and Cherry Creek Road. Several access management recommendations are presented including driveway closures and combined driveways. See Map 4-8 for the locations of recommendations 1 through 17.

1. A bicycle path could be constructed to connect from the City of Marquette waterfront thru Chocolay on the west side of US-41/M-28 from the Rock Cut Area to Silver Creek, then on to M-28 with a tunnel to cross road. It needs to accommodate pedestrians, bikes and snowmobiles. The entire area could also be enhanced with landscaping as part of an overall system for beautification (L).
2. Close drive in front of Ace Hardware (O).
3. Close drive to Marquette Veterinary Clinic (O).
4. Construct a rear service road behind Ace and Marquette Vet. Clinic (L).
5. Combine two driveways between Larue's and CITGO gas station (O).
6. Close one driveway at Harvey Oil Co. (O).
7. Move the north driveway at Phillips 66 gas station to between Phillips 66 and Harvey Oil Co. (O).
8. Improve the turning radius on intersecting diagonal roads such as Corning (O).

9. Intersection improvements should be considered at Silver Creek Road. Minimally the intersection radius at Corning Street should be improved to square it up. The pedestrian overpass location may cause a problem with the sight of the traffic signal by busses and trucks. Since the elementary school has closed, the pedestrian overpass could be removed or relocated and pedestrian crossing strips could be put down (S). A pedestrian tunnel under US-41/M-28 at/near to Silver Creek (sewer is 14' deep there, so no rock outcrop problem) could be constructed.
10. Relocate the drive way on Silver Creek Road serving the Township Fire and Police Department (O).
11. Relocate the drive way at Dry Dock Bar (O).
12. Relocate the driveway south at Wahlstrom's Restaurant (O). See Photo 4-14 of numerous driveways along US-41/M-28 in Chocolay Township.
13. Close the north driveway at Parkway Motel (O).
14. Combine the driveways between Superior Fast Lube and Wash (O).
15. At the northeast corner of the intersection with M-28 create a service road to encompass Togo's, Holiday gas station, Snyder Drug and the plaza. Close existing drives. Create access to service road on M-28 and on US-41 between plaza and Snyder Drug (L).
16. The radial street pattern at the intersection of US-41 and M-28 should be continued (L).
17. An intersection operations study is recommended at Cherry Creek Road to identify safer left-turn opportunities.

Photo 4-14: US-41/M-28 at Wahlstrom's Restaurant looking north



Insert Map 4-7

Insert Map 4-8

Proposed Bus, Bicycle, Pedestrian, Transit and Snowmobile Improvements

Pedestrian Systems

Creating more pedestrian facilities along US-41/M-28 is needed; however, new pedestrian facilities must be designed so that the safety of the pedestrians is foremost. Presently, there aren't many sidewalks along the corridor. See Photo 4-15. And where sidewalks are available, they are often too close to the road. See Photo 4-16. There are "raised curbs" adjacent to the road in Marquette Township, Negaunee Township and Ishpeming that pedestrians reportedly utilize as a sidewalk when they aren't being used for snow storage.

Pedestrian tunnels are one option that protects the pedestrian from having to cross the highway at grade. See Photo 4-17. It is a preferred alternative where traffic speed is high, and/or traffic flow or mix issues make it difficult to safely site a crosswalk at grade, however, it is expensive. Sidewalk connections are also needed between any new crosswalks or tunnels across US-41/M-28.

Photo 4-15: Raised Curbs Instead of Sidewalks



Photo 4-16: Sidewalk Close to Street



Photo 4-17: Pedestrian Tunnel Under Construction in Houghton



Ely Township/Ishpeming Township

There are no pedestrian crosswalks in place currently because of the lack of sidewalks. Pedestrian access is presently not feasible in Ely Township because speeds are too high. However, within Ishpeming Township there is a residential area off of US-41/M-28 that would benefit from sidewalks and crosswalks to provide accessibility to commercial areas along US-41/M-28. Landscaping improvements could be implemented at the same time as pedestrian improvements.

Ishpeming

Pedestrian crossings are important to the City, especially at Second Street but there are currently no sidewalks in place. A tunnel would be a preferred option but the cost would be high, and an overhead pedestrian crossing may be viable. The City should consider a plan that links pedestrian, bike, transit and landscaping accessibility improvements for the US-41/M-28 corridor.

Negaunee

Crosswalks are present on US-41/M-28 from Croix St. and Baldwin Ave in the City of Negaunee. The City of Negaunee has the only pedestrian crosswalks outside of the City of Marquette along US-41/M-28. Sidewalks should be completed along US-41/M-28 and have adequate setback from the street where possible (L).

Negaunee Township

Pedestrian access along US-41/M-28 is not feasible in this area because speeds are too high and there are no concentrated residential areas.

City of Marquette and Marquette Township

The City of Marquette and Marquette Township should have the most extensive pedestrian systems and investment in them along the corridor, because they comprise the majority of the population and the most desired pedestrian

destinations. While historically there has been a significant lack of accommodation for pedestrians along US-41/M-28 within these jurisdictions, there has been a recent effort to implement traffic calming on adjoining streets and more pedestrian orientation in local planning.

Pedestrian and bicycle crossing of US-41 at McClellan is difficult and likely to become more of a problem as the City implements bike routes. The "*City of Marquette Master Plan Update: Walkable Communities Element*" which was authored by noted transportation planner Dan Burden, Walkable Communities Inc. suggested that McClellan Ave and US-41/M-28 be rebuilt to accommodate Americans with Disabilities Act and walkability needs. Burden suggests channelized islands for all four corners of McClellan Avenue to assist with pedestrian crossings and designating sidewalks across the median for safe pedestrian crossing on US-41/M-28. The situation is greatly complicated by the fact that the McClellan Avenue intersection is part of a designated "bypass" and it is a violation of the motor vehicle code to walk or bike across or along the bypass. Other alternatives include the following: a structure over the road. However, this would be a problem with wind, snow and ice and is not likely to be used as often as it should be. A tunnel should be explored, but because of the grade changes would be difficult and expensive to implement. The old rail bridge provides one possible opportunity for pedestrian, bicycle and snowmobile connection over US-41/M-28 near McClellan, but the route would need to diagonal back to O'Dovero Drive after US-41/M-28 were crossed. Still, this is the safest alternative and should be explored. The City of Marquette is undecided on snowmobile use of the rail trail east of the rail bridge at this time, so any trail design should not be initiated until the City makes a decision.

At other intersections along US-41/M-28 west of Washington Street in the City of Marquette and throughout Marquette Township, the median could effectively be utilized, as Mr. Burden suggests, as a mid-way point for pedestrian shelter if the crossing was properly marked. Pedestrian tunnels are preferred, but the cost may restrict their use.

Pedestrian and bicycle crossing is also a growing issue at the Grove Street intersection, and will only increase in significance if 7th Street is extended. The grades on both sides of the road lend themselves to a bridge, but it would be quite long and costly. No pedestrian or bike crossing is recommended here as it is within the bypass segment. Instead, the Altamont Street bridge should continue to be used.

Chocolay Township

A bicycle path is currently proposed to connect from the City of Marquette waterfront through Chocolay on the west side of US-41 from Rock Cut Area to Silver Creek then on to M-28. Any crossing needs to accommodate bikes, pedestrians and snowmobiles. Photo 4-18 shows a portion of the current bike trail in Chocolay Township.

Photo 4-18: Chocolay Township Bike Trail Along East Side of Road



Recreation Trails

Recreation is a significant part of the economy in the Marquette area. Recreation trails are open year round for hikers and bikers in the spring, summer and fall and snowmobiles and cross-country skiers in the winter. The existing regional system is shown on Map 4-9 and the City of Marquette's trail system is shown on Map 4-10.

Proposed Heritage Trail

There is a new Heritage Trail that is proposed to link the City of Ishpeming, City of Negaunee, Marquette Township and the City of Marquette by utilizing an abandoned rail corridor which is just south of US-41/M-28 (see Map 4-9). The Heritage Trail would travel through the downtown business districts creating more accessibility for non-motorized travel. Opening this trail to pedestrian and bicycle travel close to US-41/M-28 may also translate into more pedestrians trying to access US-41/M-28 for commercial facilities near the trail. If the trail is implemented, the City's involved would have an increased need to implement other pedestrian facilities between the trail and along US-41/M-28.

Snowmobiles

Marquette County currently has a sophisticated snowmobile trail system in place (see Map 4-9). The snowmobile trail that is of most significance to this Plan is the trail nearest US-41/M-28. Snowmobiles are used in the winter for recreational trips as well as, short trips within some of the outlying areas. Snowmobiles are only allowed within the City of Marquette on designated trails because of noise problems and safety issues.

Because US-41/M-28 speeds are high, snowmobile crossings should be planned so they are grade separated or at signals. If possible, snowmobile trails should be planned so that they are separated from the US-41/M-28 highway. Currently there are two snowmobile crossings within the study area that are below grade. The first is in the City of Ishpeming and the second is in the City of Marquette at the Carp River. The snowmobile trail dead-ends in a couple places along the

corridor, near McClellan and US-41 at the old rail bridge and in Negaunee Township.

The current at-grade snowmobile crossing is at Brickyard Road within Marquette Township. There is currently no traffic signal, and the highway is five lanes at this juncture. Coupled with the high traffic volumes in this area, this is a risky crossing for snowmobilers. An alternative crossing should be considered, if possible, further to the west. The median in Negaunee Township would provide a short refuge for the snowmobiles that cross US-41/M-28, so that they don't need to cross five lanes at once. Another underpass in this area would probably be the best solution if the existing culverts at Menard's and near Brickyard are determined to be unsuitable.

Snowmobile groups are encouraged to meet with MDOT and local government officials to identify the best solutions to these and related issues along the corridor.

Insert Map 4-9

Insert Map 4-10

Transit

The Marquette County Transit Authority (Marq-Tran) operates throughout Marquette County every day of the week. There are several fixed routes. One fixed route goes from Ishpeming to Marquette. Marq-Tran also offers door-to-door service in the greater Marquette and Ishpeming-Negaunee areas. There is limited service on Sundays and holidays. Figure 4-2 shows one of the routes from Marquette to Ishpeming.

Photo 4-19: Marq-Tran Bus on US-41/M-28



Figure 4-2: Marq-Tran Route Map



Marq-Tran seems to be successful and well-established within the community of Marquette and the surrounding area. A county-wide system is an advantage for those with low incomes that may live in outlying areas.

Marq-Tran should seize on opportunities to service tourists that come in for recreation events by offering more visible information on services, such as a downtown kiosk. Bus shelters and signs would also assist those unfamiliar with the system to try it out. Bus stop signs with schedules for the route and maps of where it goes are particularly helpful. The current system of "flag stops" can be difficult for those who are not familiar with the system or the area. Adding bike

racks on buses would also provide an opportunity to capture riders who may wish to continue a trip on a bicycle.

Marq-Tran does offer service on US-41/M-28. In some cases the bus will pull off US-41/M-28 into a shopping center to load and unload passengers. Currently, buses stop within traffic to load and unload passengers. In the future bus-pullout lanes may need to be discussed with Marq-Tran staff and MDOT to determine the safest areas for the bus to stop on US-41/M-28. Presently the lack of sidewalks in many areas does not promote the ease of dropping passengers at the curb. However, it is costly for the transit system to have to drop passengers in parking lots; it is more cost effective to drop passengers on the street. But if traffic speeds are too great, that is not a safe alternative without a bus-pullout lane.

Display of Goods in Right-of-Way

Many business establishments along the corridor display goods, products or vehicles for sale inside the right-of-way of US-41/M-28. This is an infringement on the public right-of-way and often impedes clear vision at driveways and intersections. Local zoning officials and law enforcement officials should work with MDOT to prohibit such infringement of the right-of-way and then routinely enforce all applicable laws.

C:/projectfiles2003/Marquette/draftplan/chapter4.doc
C:/projectfiles2004/Marquette/marchplan/chapter4ver2.doc
C:/projectfiles2004/Marquette/finalversion/chapter4ver3.doc